RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.

Application Serial Number: _____ 10/617, 361 _____
Source: _____ IFW16 _____
Date Processed by STIC: _____ 09/20/2005 _____

ENTERED

RAW SEQUENCE LISTING   DATE: 09/20/2005
PATENT APPLICATION: US/10/617,361   TIME: 10:59:37

Input Set : A:\NEB-227.ST25.txt
Output Set: N:\CRF4\09202005\J617361.raw

```
   3 <110> APPLICANT: Morgan, Richard
   4        Walsh, Paul
   6 <120> TITLE OF INVENTION: A Novel Type II Restriction Endonuclease, BtgZI, Obtainable
From
   7        Bacillus Thermoglucosidasius 36A And A Process For Producing The
   8        Same
  10 <130> FILE REFERENCE: NEB-227
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/617,361
C--> 12 <141> CURRENT FILING DATE: 2003-07-10
  12 <160> NUMBER OF SEQ ID NOS: 11
  14 <170> SOFTWARE: PatentIn version 3.2
  16 <210> SEQ ID NO: 1
  17 <211> LENGTH: 39
  18 <212> TYPE: DNA
  19 <213> ORGANISM: Bacillus thermoglucosidasius
  21 <400> SEQUENCE: 1
  22 cgatgagaat gcgatgttgg tggccaaaag caattatcc                     39
  25 <210> SEQ ID NO: 2
  26 <211> LENGTH: 26
  27 <212> TYPE: DNA
  28 <213> ORGANISM: unknown
  30 <220> FEATURE:
  31 <223> OTHER INFORMATION: resulting cleaved DNA of SEQ ID NO:1
  33 <400> SEQUENCE: 2
  34 cgatgagaat gcgatgttgg tggcca                                   26
  37 <210> SEQ ID NO: 3
  38 <211> LENGTH: 26
  39 <212> TYPE: DNA
  40 <213> ORGANISM: unknown
  42 <220> FEATURE:
  43 <223> OTHER INFORMATION: primer annealed and extended through BtgZI site and adds
extra
  44        (A) base
  46 <400> SEQUENCE: 3
  47 agaatgcgat gttggtggcc aaaaga                                   26
  50 <210> SEQ ID NO: 4
  51 <211> LENGTH: 45
  52 <212> TYPE: DNA
  53 <213> ORGANISM: Bacillus thermoglucosidasius
  55 <400> SEQUENCE: 4
  56 ttctttctgc gcggtcaact ttgtaccaat catacatcgc ctgag             45
  59 <210> SEQ ID NO: 5
  60 <211> LENGTH: 20
  61 <212> TYPE: DNA
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62 <213> ORGANISM: unknown

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64 <220> FEATURE:
65 <223> OTHER INFORMATION: resulting cleaved DNA of SEQ ID NO:4
67 <400> SEQUENCE: 5
68 ttctttctgc gcggtcaact   20
71 <210> SEQ ID NO: 6
72 <211> LENGTH: 25
73 <212> TYPE: DNA
74 <213> ORGANISM: unknown
76 <220> FEATURE:
77 <223> OTHER INFORMATION: resulting cleaved DNA of SEQ ID NO:4
79 <400> SEQUENCE: 6
80 ttgtaccaat catacatcgc ctgag   25
83 <210> SEQ ID NO: 7
84 <211> LENGTH: 25
85 <212> TYPE: DNA
86 <213> ORGANISM: unknown
88 <220> FEATURE:
89 <223> OTHER INFORMATION: Primer annealed and extended through the BtgZI site
91 <400> SEQUENCE: 7
92 ttctttctgc gcggtcaact ttgta   25
95 <210> SEQ ID NO: 8
96 <211> LENGTH: 27
97 <212> TYPE: PRT
98 <213> ORGANISM: unknown
100 <220> FEATURE:
101 <223> OTHER INFORMATION: first 27 amino acids
104 <220> FEATURE:
105 <221> NAME/KEY: misc_feature
106 <222> LOCATION: (23)..(23)
107 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
109 <220> FEATURE:
110 <221> NAME/KEY: misc_feature
111 <222> LOCATION: (26)..(26)
112 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
114 <400> SEQUENCE: 8
116 Met Tyr Trp Leu Leu Asp Tyr Val Thr Gln Gln Lys Val Arg Asn Asp
117 1   5   10   15
W--> 120 Ile Asn Asn Leu Ile Lys Xaa Ile Leu Xaa Ile
121   20   25
124 <210> SEQ ID NO: 9
125 <211> LENGTH: 16
126 <212> TYPE: DNA
127 <213> ORGANISM: unknown
129 <220> FEATURE:
130 <223> OTHER INFORMATION: BtgZI cleaves the phosphodiester bond between the 10th and
11th
131   nucleotides 3' to the recognition sequence in 5'-GCGATG3' strand
132   of the DNA and between the 14th and 15th nucleotices in the
133   complement strand to produce the 4-base extension
136 <220> FEATURE:

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   137 <221> NAME/KEY: misc_feature
   138 <222> LOCATION: (7)..(16)
   139 <223> OTHER INFORMATION: n is a, c, g, or t
   141 <400> SEQUENCE: 9
W--> 142 gcgatgnnnn nnnnnn                                    16
   145 <210> SEQ ID NO: 10
   146 <211> LENGTH: 30
   147 <212> TYPE: DNA
   148 <213> ORGANISM: unknown
   150 <220> FEATURE:
   151 <223> OTHER INFORMATION: GPS North Primer
   153 <400> SEQUENCE: 10
   154 actttattgt catagtttag atctattttg                      30
   157 <210> SEQ ID NO: 11
   158 <211> LENGTH: 30
   159 <212> TYPE: DNA
   160 <213> ORGANISM: unknown
   162 <220> FEATURE:
   163 <223> OTHER INFORMATION: GPS South Primer
   165 <400> SEQUENCE: 11
   166 ataatcctta aaaactccat ttccacccct                      30
```

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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; Xaa Pos. 23,26
Seq#:9; N Pos. 7,8,9,10,11,12,13,14,15,16

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L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:16
L:142 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0